

This listing of claims presented below replaces all prior versions and listings of claims in the application.

Listing of Claims

Claims 1-25 (cancel)

Claim 26 (Currently Amended) A method of producing a transgenic plant strawberry plant, comprising treating the tissue of a plant with *Agrobacterium thumefaciens* which comprises at least one vector into whose composition there enters at least one gene of interest; wherein the method in the step of transformation a stagewise co-cultivation of explants is used, which and producing explants comprises the steps of:

- i) selecting one or more leaf segments for preparing explants discs;
- ii) preparing leaf disks by separating a segment from each disk; followed by inoculating and co-cultivating the leaf disks with agrobacteria for access of the agrobacteria;
- iii) inoculating the leaf disks with the agrobacteria followed by removing excess agrobacteria from the leaf disks;
- iv) separating a number first lot of explants, into which the disc inoculated with agrobacteria is separated, followed by separating 2 to 5 explants; in each step after separating an explant, the remaining portion of the disc is preincubated for 1 to 5 days to provide for inoculating the remaining portion with agrobacteria; from the side of the first section
- v) transferring preparing lots of explants after each step of separating explants, the lots are transferred onto the selection and regeneration media comprising from 1 to 10 mg TDZ, from 0 to 0.3. mg IBA, and from 10 to 100 mg kamaycin; from the prepared lots, explants, with a lowered frequency of necrotic reactions are selected and one or more transgenic plants are formed, onto a selection and regeneration medium; and
- vi) repeating steps iv) and v) to prepare additional explants until a last lot of explants from the selected leaf disks has been prepared;
wherein the preparation of each of the subsequent lots of explants is carried out after a time interval that is required for the transformation of plant cells and formation of acquired resistance to abiotic and biotic stresses in the leaf disks by inducible activity and for lowering the frequency of somaclonal variations in the transgenic plant:

Claim 27 (Currently Amended) The method according to claim 26, wherein the vector contains genetic material a gene that codes for at least one target protein.

Claim 28 (Currently Amended) The method according to claim 26, wherein the vector contains genetic material a gene that codes for at least one protein which contributes to lowering necrosis in the step of transformation.

Claim 29 (Currently Amended) The method according to claim 26, wherein the vector contains genetic material a gene that codes for at least one protein which enhances plant resistance to phytopathogens and which is selected from the group consisting of PR-1, PR-2, PR-3, PR-4, and PR-5.

Claim 30 (Currently Amended) The method according to claim 26, wherein the vector contains genetic material a gene that codes for a combination of proteins according to claims 2, 3, or 4 27, 28 or 29.

Claim 31 (Currently Amended) The method according to claim 29 wherein the vector contains genetic material a gene that codes for thaumatin, belonging to PR-5.

Claim 32 (Currently Amended) The method according to claim 29, wherein genetic material a gene codes resistance to fungi selected from the group consisting of Phytophthora fragariae, Verticillium alboatrrum, Mycosphaerella fragariae, Diplocarpon earliana, Dendrophoma obscurans, Botrytis cinerea, and Sphaerotheca humuli.

Claim 33 (Cancel)

Claim 34 (Cancel)

Claim 35 (Currently Amended) The method according to claim 34 26, wherein the garden strawberry plant is selected from the group of varieties: Selekta, Chamby, Chandler, Oka,

Yamaska, L'Acadie, L'Authentique Orleans, Rosalyne, Roseberry, Saint-Pierre, Donna, Enzed Levin, Enzed Lincoln, Vilanova, Durval, Redcrest, Bountiful, Redgem, Pelican, Primtime, Mohawk, Latestar, Winoma, and Feyerverk.

Claim 36 (Cancel)

Claim 37 (Cancel)

Claim 38 (Cancel)

Claim 39 (Cancel)

Claim 40 (Cancel)

Claim 41 (Previously Presented) The method according to claim 26, wherein the composition of the selection medium and of the regeneration medium includes TDZ, IBA and kanamycin.

Claim 42 (Cancel)

Claim 43 (Currently Amended) The method according to claim 41 26, wherein the concentration of TDZ is 5 mg/l.

Claim 44 (Cancel)

Claim 45 (Currently Amended) The method according to claim 41 26, wherein the concentration of IBA is 0.3 mg/l.

Claim 46 (Cancel)

Claim 47 (Currently Amended) The method according to claim 41 26, wherein the concentration of kanamycin is 50 mg/l.

Claim 48 (Previously Presented) The method according to claim 26, wherein the ratio of the section length and the explant surface area is from 0.1 mm/mm² to 2 mm/mm² .

Claim 49 (Previously Presented) The method according to claim 26, wherein the ratio of the section length and the explant surface area is 0.5 mm/mm² .